

THE PARADOX OF DEVELOPMENT PLANNING

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It would be difficult to select a more significant world-wide economic development over the last two decades than the widespread adoption by governments of national planning in more or less authoritarian form. The contrast with the situation at the time of the last world war is striking. No longer is economic planning limited to the Soviet economy and the socialist government of Sweden, as was true then, but it has gained acceptability as an instrument of national progress in most of the parliamentary democracies of Western Europe as well as the Communist-ruled governments of Eastern Europe and China. Among the recent converts, perhaps nowhere else has it been as eagerly received, as regarded with so much promise, as by the (often newly created) governments of the underdeveloped countries of the world, particularly in Asia and Africa — much of the so-called “Third World.” Nowhere else are peoples so impoverished, nowhere else has the realization of the possibility of a life that offers more than the daily struggle to avoid starvation been so recently awakened, and, hence, nowhere else are the pressures so acute on national governments for mobilizing the most expedient means of meeting those needs and hopes.

Of course, doctrinaire considerations have played some role in the institutionalization of economic planning in underdeveloped countries, as well as elsewhere. Foremost among these have been the desire to avoid recurring crises, an unsatisfactory distribution of real income and problems of exploitation, discrimination and restriction of output attributable to the existence of excessive market power. Nevertheless, rising above these old arguments has been the new fear that only through some means of swiftly and directly mobilizing and channeling the all-too-scarce nonhuman resources of these economies — if necessary by coercion — may it be possible not merely to overcome stagnation but to begin to make up lost time in the race for economic progress, to catch up at least part way with the more advanced countries before a widening global maldistribution of the material comforts of life, the ultimate sources of power, imposes on them a new colonialism. Whatever advantages the newcomer supposedly has in constructing an industrial base long after it has been established elsewhere with much trial and error, he still is faced with the forbidding task of demonstrating that he is capable of learning from the mistakes of others — and with possibly fewer resources than were available to his predecessors at the start, still compresses the gestation period for a relatively industrial economy.

If we examine the record achieved by underdeveloped countries with planning, countries with varying degrees of totalitarian systems, the results are not encouraging. India, for example, has recurring difficulties in feeding her millions and even in Mainland China, the periodic famines following the failure of "The Great Leap Forward" renders doubtful how much better off her citizens are than a decade ago. There have been no marked successes anywhere and while it may be valid to claim that it is too soon to render final judgment on the efficiency of development planning in these countries, there is little question that elements opposed to planning on political, economic or even religious grounds have been gaining in strength and even occasionally reaching power, whether by democratic or other means. Ceylon was, and Greece is, an example of accession to power by groups not committed to economic planning. Though other issues and developments in these and other cases may have been more important in strengthening conservative elements in less-developed countries, the failure of planning to achieve the results expected of it is not likely to be indefinitely tolerated even in the most seemingly secure authoritarian regime. The alternatives are not clear-cut; a more unplanned and market-oriented economy may emerge if some of the experiments currently undertaken, for example, in Yugoslavia, prove successful.

The burden of this paper is not to elucidate the advantages or disadvantages of national economic planning *per se*. Rather, it seeks to suggest why the poor or disappointing results for underdeveloped countries thus far are not surprising by indicating how their special situation imposes peculiar and great difficulties in attaining planning goals. These problems imply that development planning stands a far better chance of success in the more advanced economies. Thus, what this paper shows is that development planning in underdeveloped countries calls for less ambitious and more realistic planning goals than has been the usual practice, and a rethinking of some of the conventional wisdom usually embodied in a national plan.

I. INSTABILITY OF AGRICULTURAL OUTPUT

Apart from a low level of income, the most distinctive characteristic of underdeveloped countries is a relatively very large agricultural sector, generally exceeding 50% of the total labor force as compared to 20% or less in many industrially advanced countries.¹ Nor is the share of the agricultural sector much smaller, relatively to advanced countries, when measured in terms of national product.² Prosperity or depression, the level of income and employment, indeed a reasonably adequate nutritional level or threatened starvation, is therefore virtually exclusively

¹ See, for example, Simon Kuznets, "Quantitative Aspects of the Economic Growth of Nations: II. Industrial Distribution of National Product and Labor Force," *Economic Development and Cultural Change*, Supplement to Vol. V, No. 4, July 1957, Table 8, p. 20.

² *Ibid.*, Table 1, p. 8.

dependent on conditions in agriculture. This is clearly the chief reason for the goal of a more diversified economy that is invariably sought in planning.

As is widely recognized, agricultural output tends to be more unstable than industrial output, being particularly prey to the vicissitudes of wind, weather and pests. A relatively long gestation period also means that losses cannot be quickly made good, no matter how large the conventional resources of labor, implements and land available. Given the large weight of agriculture in the total, the inevitable yet unpredictable and uncontrollable hazards of cultivation mean that the plans of underdeveloped countries are far more vulnerable to disruption than is true in industrially advanced countries. Consider, for example, that investment in real terms depends on the surplus that can be wrung from the national product and that this must be a predominantly agricultural surplus of production over consumption in developing countries. Then again, aside from mineral output, agricultural products predominate among the exports of developing countries. Foreign exchange for imports vital to development thus also depends heavily on a satisfactory level of output. And imports of foodstuffs which can consume scarce and needed foreign exchange are principally determined by the size of the harvest. Savings and investment, exports and imports — the chief planning magnitudes — can scarcely be formulated with great confidence or forecast with much accuracy when so dependent on the variability of agricultural output, and, therefore, so much at the mercy of nature.

In addition to the sheer size of the agricultural sector, another important disability of planning in underdeveloped as compared to more advanced countries lies in the greater exposure of agriculture to natural hazards in the former. This simply follows from the much-lower level of agricultural investment per worker or per unit of arable land in underdeveloped countries, whether in the form of irrigation projects, fertilizer, weather- and pest-resistant crop strains, indoor protection for livestock or planting and harvesting machinery. Weather conditions, for example, to which more capital-intensive agriculture would be substantially immune, could be the source of considerable crop and livestock destruction otherwise. Both greater output stability and productivity are the benefits to be derived from greater agricultural investment, which also helps explain why some industrially advanced countries tend to be less frequently or as heavily dependent on overseas supplies than they were in the past.

Even techniques of cultivation quite apart from input combinations play a part in undermining the stability of agricultural output in underdeveloped countries. Among these may be included primitive farming techniques which, through lack of crop rotation or other means, exhaust the fertility of the soil or do not allow for retention of moisture. Sooner or later this invites human suffering from malnutrition in tragic proportions when virgin, extramarginal farmland is limited and rainfall is often scarce.

Agriculture has a vital bearing on the success of a development plan in still another important way – in the widely recognized pattern of behavior of farmers which arises particularly in underdeveloped countries. There are at least three separate aspects to this behavior.

First, when farmers are not collectivized and forced to surrender part of their output at a predetermined price, periods of rising foodstuff (and raw material) prices – whether the result of crop failure or expansion of effective demand – appear to produce a smaller marketed surplus than might be expected on the basis of the estimated size of the crop. The development potential of agriculture in the form of food for urban workers (and inputs for industry) is thereby characterized by acute instability, if not in the size of total output itself. The obvious reason for smaller marketings, mainly of foodstuffs, is greater consumption by farm families. With incomes close to the subsistence level, as is often the case in the rural sector of developing countries, food has a considerably higher income elasticity than is true at higher income levels. With higher prices meaning higher incomes, there is consequently an increase in farmers' reservation demand for their own output of food and fuels.

Development planning is never inconsequentially affected by this phenomenon. Even if higher prices are not the result of crop failure, the inelasticity of supply in the face of expanded monetary demand almost assures serious interference with the goals of planning through an absolutely smaller marketed output than at the end of the preceding crop season.

The second and third aspects often follow from the first and whether they occur in conjunction or not, they tend to assure that the effects of the first are not temporary. A backward-bending supply curve of effort, which invariably appears in cultures common to backward economies, is what the second aspect amounts to. Higher agricultural real incomes tend to produce a substitution of leisure for income, which means a smaller area of, or less intensive, cultivation and, consequently, a diminished output for the following harvest. In technical language, since higher farm prices mean higher real incomes and since leisure is a normal (positive income-elastic) "good", the higher "price" of leisure produced by rising farm prices can make the (positive) income effect outweigh the tendency to substitute effort for the now higher-priced leisure.

But this may not be the entire reason why higher agricultural prices bring a curtailment of effort or at least reduced marketings. The third aspect occurs when rising farm prices are merely an accomplishment of general inflation. Farmers now find that the industrial goods they require are likewise higher-priced, and about as much out of reach as before. This may induce farmers to rely on a more self-sufficient form of agriculture, and, thus, lead to a smaller output of commercial crops, staple foodstuffs and other marketable products.³

³W. Arthur Lewis reports that a decline in agricultural output consequent upon an inflationary rise in prices was one of the chief reasons for collectivization in the Soviet Union. See Meier, G.M., *Leading Issues in Development Economics*, New York, 1964, p. 421.

No enumeration of the main causes of agricultural instability in developing countries can be complete without mention of the element of error in human judgment. Where the effects of such error are widespread, the cause can usually be found in government policy decisions. The probably adverse effects on agricultural productivity of two possible decisions governments of underdeveloped countries may be tempted to make are traced below.

The indisputable, if superficial, cause of the overly large proportion of people engaged in agriculture in developing countries is a low level of productivity per man and per unit of land. At the same time, land hunger often prevails in such countries, and, in response to pressure for land reform, governments may decide to embark on a program of land redistribution as part of a policy of social reform which also finds expression in a development plan. The break-up of large estates may also seem wise on purely economic grounds, for where labor is cheap relatively to land or capital, the most economical input proportions would seem to call for a more labor-intensive agriculture which could result by allowing formerly landless peasants to farm their own land. And this policy appears even more desirable when portions of large agricultural estates are put to pasture or lie fallow continuously at one time or another.

However, any reduction, even relatively, of capital inputs in agriculture, whether taking the form of machinery, fertilizer or improvements — such as irrigation, practical only for large units of land — will also increase the exposure of agricultural output to the hazards brought by weather, by insects and even by crop or livestock diseases. If, for example, the presence of bad weather threatens to cut deeply into harvested output, the speed with which harvesting machinery can do the job may save a crop which might otherwise call for an impossibly difficult task of mobilizing huge amounts of labor on extremely short notice. Likewise, crop diseases that could effectively be isolated and prevented from spreading by the destruction of the crop in the immediate vicinity of the infected area may rage unchecked in a region of small private holdings, where such prevention methods simply cannot be afforded. Thus, without the protection yielded by a somewhat capital-using agriculture practical only for larger than family-sized holdings, agricultural output will indefinitely remain too much the hostage of nature to permit any appreciable long-run progress in raising living standards.

Of course, the problem of how to absorb the landless peasantry into productive pursuits would now have to be dealt with. But the above should show that it is both too simple and too dangerous to reabsorb them into agriculture by way of land redistribution. This remains true even when the chief pressures for land reform stem from the existence of idle land in large estates in a manner which is not demonstrably linked to the need to restore its fertility. The proper remedy in this case is the provision of incentives sufficient to bring other than submarginal lands back into cultivation. To the extent that economies of a large scale can be shown to exist

in agriculture, the imperative need to raise productivity argues additionally for the retention of large units. Nor does a policy of making the maximum capital investment in agriculture consistent with a profitable increase in productivity appear uneconomic by increasing productivity per worker when land, not labor, is the scarce factor. The intelligent use of fertilizer, insecticides and extensive irrigation schemes, aspects of investment in agriculture hardly secondary to agricultural machinery, can raise output per unit of land by as much or usually more than possible by application of any amount of labor.

On the other hand, the attempt to reap all the economies of a large scale, and to limit the number of units to be regulated through the forced collectivization of agriculture may represent another costly mistake. This is a tempting policy when even agricultural prosperity fails to produce the increased marketed surplus of food and raw materials necessary to sustain an urban work force and industrial economy. Coercion, however, is seldom the most effective means of raising productivity — and often lowers it. Under forced collectivization, coercion generally takes two forms.

First, peasants are compelled to incorporate their own land and livestock into the collective in return for a share in the profits of the enterprise, which is usually commensurate with the labor they provide to it. Not only may resentment over being compelled to join the collective induce peasants to kill off their livestock before they should be turned over and make them work less vigorously as collective members, but since their share would depend on how many hours of labor they furnish, not how hard they work, they would thus be subjected to the all-too-human temptation of letting their collective partners do the harder work from which they would also profit. As this attitude can be common at the same time to all collective members, productivity can consequently plummet.

Second, forced collectivization usually involves the delivery of a certain amount of produce to the state, i.e., to some appropriate government agency, at a predetermined price. There would be little purpose to forcible collectivization if the state could otherwise be assured of a steady supply of agriculture production to the cities. The problem here is the relative size of the quota. If set so high that the collective members can hardly retain enough to feed themselves, let alone sell in the more profitable "free" market, their protest may take the form of a decline in productivity sufficient to make it impossible to meet the quota. They may thereby hope to force the state to grant more favorable terms in the future. This additional cause of lowered productivity as a result of forced collectivization may be sufficient to wreck any short-term set of development goals.

Naturally, still other examples of errors of judgment in agricultural policy which tend to promote instability in agricultural output could be mentioned, such as the opening of virgin lands for cultivation without adequate consideration of why, over the centuries, they have remained largely virgin. These, however, should

suffice to give some idea of the need for extremely careful consideration which must be given to every phase of agricultural policy in developing countries. As all the foregoing should demonstrate, there is no other single aspect of the economies of developing countries which is nearly as crucial in determining whether or not any given development plan will meet with a substantial measure of success. The industrialization eventually foreseen as the product of the successive attainment of the goals of successive development plans can be assured only by the fulfillment of conditions which assure a sustained, steady rise in agricultural productivity.

II. UNCERTAINTY OVER EXPORT PROCEEDS AND IMPORT PRICES

The importance of external trade ranks second only to agriculture of influencing the rate of growth of underdeveloped countries. Not only is a generally large portion of national product exported,⁴ so that the level of incomes, employment, profits and real domestic investment depend heavily on the adequacy of domestic supply and the strength of foreign demand, but the capital goods and other materials critically necessary to the establishment of a firm industrial base can generally be obtained only from abroad in the early stages of a country's development and thus must be paid for largely with export proceeds. Hence, the significance of both exports and imports to the growth and development of backward economies is by no means limited to the commodity sectors they represent; rather, changes in the level of either exports or imports are bound to have considerable ramifications throughout the economy in the immediate future as well as the present.

To an extent even greater than that in agriculture, export proceeds are variables which tend not to be subject to the control of economic planners and therein lies their potentially highly damaging effects on the outcome of any development plan. Lack of control over export proceeds can be broken down to a lack of control over export prices and over export volume. Different factors affect export and import prices and export volume, complicating the problems of formulating reasonable export and import goals, which must be based on some prognostications of trends.

Export commodities of underdeveloped countries are overwhelmingly "primary" commodities, i.e., the unprocessed or semi-processed products of agriculture, husbandry, forestry, fishing, and mining. All but the last two are subject to various disabilities described in detail in the preceding section, so that the actual average volume of production over a period as relatively short as most single development plans cover can be markedly affected by the extraordinary production of one or more years of that period. And where the export commodity is a staple with a

⁴See Simon Kuznets, "Quantitative Aspects of the Economic Growth of Nations: IX. Level and Structure of Foreign Trade - Comparisons for Recent Years," *Economic Development and Cultural Change* XIII, No. 1, Part II (Oct. 1964), Table 2, pp. 9-10.

significant domestic demand, the deviation of actual from planned production may be magnified in its effect on export volume by any discrepancy that might arise between planned and actual domestic demand, such as through factors beyond the control of planners in the short run at least, as, for example, changes in tastes or shifts in consumer expectations of future prices. While such shifts in demand and supply may at times be offsetting in their effects on export volume, this will not be the case when, say, a shortfall in the production of an exportable staple foodstuff is confronted by an expanded monetary demand resulting from the realization of other domestic development goals or merely from the implementation of policies seeking to promote those ends. Likewise, if industrial activity lagging behind targeted output occurs roughly simultaneously with an unexpectedly large harvest of exportable but domestically utilizable agricultural raw materials, the larger than expected surplus can have serious consequences on expected export receipts if the country's marketable output affects the world price.

Thus, when primary exports of agricultural origin are considered, the instability of total output attributable to natural factors or to agricultural conditions germane to underdeveloped countries can be aggravated by variations in significantly large domestic demands for such commodities outside the control of planners – or by factors directly related to success, lack of success or means of achieving success in the realization of the economy's development goals in other sectors. But internal conditions are still not the only ones which may govern the volume of primary exports of underdeveloped countries. Whether the objective is to protect a new primary commodity industry which otherwise should compete directly and at a disadvantage with lower-cost imports of that commodity, or to promote the development of synthetic domestic substitutes for imported primary commodities or simply as a means of exercising political leverage in countries representing sources of supply, the prime customers of the developing countries – the more advanced countries – can always exercise their sovereignty to the detriment of at least some developing countries by establishing or reducing quotas on the volume of their primary commodity imports, or by merely redistributing a set of import quotas among supplying countries. This additional element affecting the stability of export volume is hardly more predictable than those factors of purely domestic origin.

Prices of primary commodity exports of developing countries are basically not more subject to control by planners than is the volume of agricultural exports. Few developing countries today are able to exert as decisive an influence on the price of any of their primary commodity exports as might have been true several decades back. Along with the introduction of manufacturing, certain important primary commodities, coffee and natural rubber, for example, have become more ubiquitous export commodities of developing countries in recent years. Furthermore, the capability of affecting world prices by variations in production in countries where this remains the case does not imply the ability or desire to deliberately do so. Limitation of supplies to the world market by any individual

country may be possible only through the destruction of some portion of output, given the impossibility of regulation of the production of agricultural primary commodities as precisely and quickly as required by changing world market conditions, and given a general lack of storage facilities. A policy of outright destruction in the hope that prices would be raised more than proportionately is bound to arouse opposition in some quarters at home, and would be particularly difficult or expensive to enforce — whether or not coercive means are applied.

If an international cartel of exporting nations is formed with regard to individual commodities, problems of enforcement will still be present with respect to each country's delivery quota, while additional problems are likely to arise in connection with the determination of each country's quota. Moreover, the fact that countries whose output, individually or collectively, cannot affect the world price can reap all the advantages of the cartel by remaining outside it is likely, sooner or later, to induce one or more members to leave the cartel, and, thus, ultimately wreck it. Hence, export prices of primary products, by and large, cannot be satisfactorily or even indefinitely controlled by either individual countries acting alone or by collusion among groups of developing countries.

If export prices cannot be effectively controlled from the supply side alone, are they likely to be regulated by agreements between supplying and consuming countries? Such "commodity stabilization" schemes have been continually proposed, debated and sometimes put into effect over the past several decades, but few have ever survived for very long for the simple reason that the essentially conflicting interests of sellers and buyers cannot be indefinitely reconciled.

But if control is not possible, can prediction of price change be made reasonably accurate so that development goals can be formulated with some degree of confidence? One must recall that the planning periods for specific national plans seldom exceed four or five years. While underlying trends may be accurately gauged by skilled forecasters, the planning period is generally much too short for a trend to clearly dominate the behavior of price. Perhaps for no single commodity category is this more true than for primary commodities in general, and particularly if they represent export products. In fact, the price fluctuations to which the primary commodity exports of the developing countries are subject are often so severe and so frequent that they heavily obscure the underlying price trend, making even long-range forecasts quite hazardous. Thus, the prices of exports of developing countries appear neither controllable in the long run or predictable (within reasonably tolerable margins of error) in the short run, and, therefore, pose no less serious a threat — by virtue of their instability — to the attainment of planned development goals than the instability of export volume.

To the extent that exports finance imports, import prices will determine the volume of imports which, as mentioned earlier, may be the principal source of goods requisite to the building of an industrial base. No less than export prices,

import prices are likewise beyond the control of planners in developing countries. The reasons for this are fairly obvious. First, the limited purchasing power of developing countries does not put them in a monopsonistic position, individually or even collectively, for virtually any commodity category of their imports. This is particularly true of capital goods, for the widest markets for these goods are still in advanced countries. Second, to the extent that imports are financed by "tied" loans or grants or similar arrangements which require recipients of loans or grants to spend all or the bulk of the proceeds in the lending or granting (advanced) countries, the recipient (underdeveloped) countries are denied even the opportunity to seek whatever price advantage they might obtain by "shopping" for their requirements in the normally highly competitive (internationally) industrial goods markets of the more advanced countries.

Granted the lack of control over import prices, the question of predictability again arises for purposes of formulating reasonable expectations of import volume even when the means of payment are assured. All that can be said in this connection is that while the prices of commodities underdeveloped countries tend to import — particularly from the more advanced countries — will be more stable than the prices of their primary goods exports, they are nevertheless subject to cyclical influences which are likely to be the dominant ones over the period of the national plan. While prices of industrial goods from the advanced countries may tend to be more volatile during cyclical expansions than during contractions — though this may be less true of international than national markets — the accuracy of prediction of price behavior over either cyclical phase will depend mainly on how knowledgeable planners in developing countries keep themselves with respect to general economic conditions in the more advanced countries, and, thus, how well they can appraise future tendencies. This is a much more formidable task than gauging future demand for primary commodities in advanced countries, because that involves a much more limited number of industries than the wide range which represents the imports of typical developing countries. Hence, information and expertise which are sometimes lacking in the advanced countries themselves would have to be available to economic planners in developing countries, if they are to be well informed on prospective price movements of goods which must be imported. The challenge that this represents suggest that such price forecasts will necessarily be subject to a wide margin or error, and, thus, render difficult the estimation of import targets sufficiently precisely to assure, for example, that certain investment goals will be reached as long as other economic objectives also are.

Export volume, export and import prices are more important determinants of the balance of payments of developing than advanced countries, given the greater weight of the trade balance in the former group of countries. Since these determinants are probably the least subject to control and perhaps even the most difficult to forecast, it is hardly surprising that so often development plans of underdeveloped nations come to grief because of (unforeseen) balance-of-payments problems.

III. INADEQUACY OF INFORMATION AND PERSONNEL

The lifeblood of economic planning is concrete, comprehensive, and up-to-date information on the structure of the economy and its manner of functioning. With the future always uncertain, planning can never aspire to represent more than a set of eminently reasonable, consistently formulated expectations of the directions in which the economy will move under the stimulus of appropriately designed and promptly implemented social and economic policies. How reasonable and consistent these expectations are will depend not nearly as much on the sophistication of planning techniques utilizing descriptive detail on the economy and its pertinent characteristics – as on the quantity and quality of the raw data providing that detail. Inadequacy in this respect can reduce planning to little more than a means of rationalizing someone's guesses or hopes about the future, and should generate about as much confidence in informed quarters as that which can be placed in witchcraft.

The importance of an adequate body of information on which planning can operate is not likely to be fully realized because the blame for any disappointing results will tend to be placed elsewhere, especially if implementation of the plan does not proceed as smoothly as anticipated or apparently unusual events provide a tempting excuse. After all, if between the time a plan is first drawn up and the time it is terminated the informational sources on which the principal planning magnitudes are based is not improved, how is one to know that the fault lies mainly with the data unless one had initially little confidence in the accuracy of the basic estimates? Only when efforts are continually made to improve the stock of information available to planners will the critical importance of the data be brought to light and the need to make current revisions in goals uncircumventable. If widespread public acceptance of economic planning is indispensable to its success – as is likely to be the case where planning involves a minimum of coercion – the attempt must be made to convince the public that the changes thus required do not amount to “tampering” with the plan's basic set of objectives.

It is not difficult to postulate any number of instances of how insufficient or inaccurate data – or the absence of a framework in which they can be collected and organized can impair the efficiency of planning and lead to failure to meet targeted goals. For example, without a system of national economic accounts in which to record the results of current economic activity and at least that of the recent past, how can certain structural parameters critical to planning – such as the average (or marginal) propensity to save out of income, the average productivity of capital (or marginal productivity of investment) or the propensity to import out of changes in total spending – be determined? Since the realizable rate of growth of output depends on the savings propensity and the productivity of investment,⁵ on what

⁵ If Y is national income or product, ΔY its change, S is current savings, I investment and $S = I$ ex post, then: $\frac{\Delta Y}{Y} = \frac{S}{Y} \cdot \frac{\Delta Y}{I}$.

rate of growth can planning then be predicated? How much investment should be planned to attain a certain rate of growth of per capita income if the estimate of the rate of population growth was only sketchily put together? What volume of imports can be expected when the planned growth rate is achieved if the estimate of the import propensity is believed subject to a wide margin of error, perhaps as a result of a changing mix of controls, and how much of domestic production should be exported if the foreign-exchange gap is to be kept to a minimum? Without the data necessary for establishing a system of inter-industry relationships, how much of the output of any given industry can be expected to be utilized by other domestic firms, by final consumers, including government as consumer and producer, and how much could be made available for export? What proportion of the intermediate and capital inputs of some other industry is likely to be provided by domestic production alone? If demographic characteristics relating to age and sex composition are unreliable and birth and mortality rates are representative only of urban centers, by how much can the labor force be expected to grow? What is the implied increase in productivity, given the estimated rate of growth of output and what industries can be expected to absorb the labor made redundant both by national increase and productivity growth?

These questions obviously touch upon the most vital areas of national economic planning and should illustrate the overriding importance of reliable and sufficient information to well-conceived plans. Techniques, like ideas of any sort, can always be borrowed at virtually no cost, but no one has yet devised a means short of sheer invention for obtaining economic and social data without allocating resources to their gathering. Therein lies the nub of the problem for underdeveloped countries, for one can hardly hold the economic planners of these countries to be unaware of the data shortcomings they must somehow wrestle with. With resources, except perhaps unskilled labor, in such short supply that they are needed for satisfying the most pressing needs, it becomes at least politically difficult to expend them in areas which appear to bring little in the way of certain, tangible, and immediate benefits. In this sense, information-gathering and the establishment of a network of statistical services are other forms of very needed capital for developing countries — promising important but distant returns, and suffering from the lack of visibility afforded by the more common symbols of an industrializing society.

But the problem for underdeveloped countries lies deeper and is more acute than the above conveys. As indicated in the first section of this paper, the agricultural sector — by virtue of its size and economic importance — is the single most important sector for developing countries from the viewpoint of both their immediate welfare and growth prospects. Even when this realization leads to a commensurate reallocation of durable capital and intermediate inputs to agriculture, the information gap remains greatest there. Clearly, this is mainly the result of the greater difficulty, and, thus, cost of gathering information on that sector, which is related to the dispersal or low population density characteristic of it and the

absence of primitive forms of record-keeping employed by individual producing units. And as long as the population remains predominantly rural, as is the case with virtually all developing countries, the problem pervades the social area as well, affecting the reliability of census-based (where taken) estimates of sex and age structure, labor force participation and rates of increase, to mention just a few important aspects.

Faced thus with relatively greater needs elsewhere and relatively higher costs of information-gathering because of structural characteristics, the problem is considerably greater for underdeveloped than for advanced economies and probably varies closely with the degree of backwardness. Here we have another, less obvious example of the "vicious circles" plaguing developing countries: without adequate information on the economy and population, existing resources cannot be effectively marshalled and confidently allocated to their more productive uses through the instrumentality of a development plan, and because reliable, comprehensive information represents a particularly costly resource in a situation of general scarcity, it is correspondingly more difficult to achieve the increase of nonhuman resources and levels of consumption for which economic planning is employed.

The technical competence of government employees or advisors entrusted with the various aspects of planning is likewise an important factor in determining exactly how successful development planning is likely to be. By and large, developing countries are relatively less well endowed with skilled professional classes than more advanced countries, although the lack of opportunity in private enterprise is likely to attract a disproportionately large number to government service in the former countries. Successful planning, insofar as it is within the possibility of human management, requires an uncommon blend of good professional training, shrewd judgment, and the wisdom taught by some experience. Where these are lacking, the guesswork inherent in planning is likely to be magnified beyond what is consistent with a plan's soundness; if a plan's success is too dependent on the fortuitous avoidance of blunders born out of ignorance on how to plan, it is only a matter of (a short) time before some measure of economic disaster strikes.

Resources in developing countries for providing good professional training on a level comparable to that obtainable in the advanced countries are likely to be limited in quantity, if not absent altogether, reflecting the paucity of developmental resources characteristic of the backward economy. Especially important in this connection is not simply the lack of well-trained economists — for that is likely to be the least of the problem — but the host of statisticians, particularly, but also demographers and even mathematicians, educators and health officials on whose competence successful planning equally rests.

Perhaps of all forms of foreign aid, technical aid — in the form of professionally trained personnel capable of being useful on all levels of planning or at least in less

security-sensitive areas — is likely to reap both a maximum of economic benefit for developing countries and goodwill toward the more advanced nations. Even more attractive, theoretically, though somewhat longer run, is the education of potentially useful public servants (as planners) of developing countries in the varied institutions of the more advanced countries, whether or not subsidized by the latter. The considerable saving in resources for specialized education and training thus made possible would have to be weighed against the cost and embarrassment of permanently losing some of the more gifted of these students to the greater material rewards that the host countries can and may offer. Development planning, however, may neither be able to await the receipt of foreign aid nor the maturing of indigenous skilled professionals, and so the possibility of recruitment of foreigners — on a temporary basis at least, if not popular as a continuing policy — can bring advantages to planning which should outweigh the costs.

On the other hand, good judgment would appear to be a quality not necessarily in deficient supply in developing countries. But where planning is concerned, however, this may largely depend on the wealth of experience of private businessmen which the government can draw on for advice. In an economy in which entrepreneurship is spread rather thinly and which is largely limited to a few, relatively nonindustrial sectors, the practical experience that could be invaluable for counseling and advising planners on the choice of development strategies and policies cannot be automatically counted on. And because this experience would have to be grounded in the institutions, culture, and history of the country — as well as in its salient economic features to be relevant and useful for solving the country's particular development problems, there is little possibility of importing it. The same applies, though to a smaller extent, to other private individuals potentially capable of contributing to the formulation of ends and means of human and physical development in a plan, such as doctors, engineers and even clerics.

There is probably no substitute for sheer experience in planning, and to this extent it is quite unrealistic to believe that the introduction of planning presages immediate success in transforming the economy. Too many unknowns in terms of what to do and how to go about it are initially present for a great deal to be accomplished right away, and some experimentation in planning is both unavoidable and desirable. For this reason, the greater part of wisdom in planning is to begin on a relatively modest scale with limited immediate goals and to increase gradually the scope and ambitions of planning as knowledge accumulates. "Too much, too soon" is not only a likely epithet for a development plan of an underdeveloped country, given the urgency of the needs it seeks to satisfy; it may also be the cause of a premature abandonment of planning.

IV. CONCLUDING COMMENTS

No attempt has been made in this paper to catalogue all the causes of the failure of development plans in underdeveloped countries to meet their set goals. Other

common cases may still be cited. For example, the lack of implementation of even the most carefully devised plans, because of political differences arising out of the choice of policy instruments to achieve given ends, or like reasons, is bound to leave the country with little more than a set of interesting documents for future historians to study. And, to a greater or smaller extent, almost all development plans, wherever adopted, lack the smoothness and promptness of execution on which they are essentially predicated. Of course, if political instability is as a rule greater in developing countries, it will be in these countries where problems of plan implementation are more frequent and more severe.

As mentioned in the introduction, what this paper has tried to do is show which risks are likely to be inherent in development planning in underdeveloped countries, and, by indicating their seriousness, to explain why development plans are more prone to unsatisfactory outcomes in underdeveloped countries in contrast to more advanced societies. Indeed, the paradox of development planning is that it is most likely to prove successful where it is least needed. If there are any lessons to be learned from the planning experience of underdeveloped countries, it is that it is safer to err on the side of caution rather than on the side of ambition when targets are formulated in agriculture and foreign trade. And it may be quite indispensable to the success of current and future plans to engage in a seemingly luxurious expenditure of scarce resources, such as educated manpower, to tasks such as information gathering and processing and the education and training of specialists useful to planning. Perhaps most important of all, it must be remembered that successful planning, like good wine, cannot be achieved without the passage of time. There is profit in past mistakes and failures if one can learn from them.